

PSYCHO-PHILOSOPHICAL IMPLICATIONS OF CO-TERMINUS INTERACTIONS OF SCHOOL PLANT AND SCHOOL OUTCOMES IN NIGERIA

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ABSTRACT

The objective of every educational encounter is to bring about desirable changes in student's knowledge, attitudes, and skills. To facilitate the achievement of these cogitative, affective and psychomotor outcomes, schools are provided with various facilities among other inputs. But in spite of this, Nigerian schools seem to be performing poorly in terms of realisation of these critical objectives. This poor performance is partly attributed to the uncondusive learning environment prevalent in Nigerian schools. However, the quality of the school plant could affect the attainment of school objectives which in turn determines to some extent, the fate of the school plant for better or for worse. For this co-terminus interaction to be fruitful, the quality of school plant construction, utilisation and maintenance should be the focus of managerial attention.

Introduction

Before man was brought into existence upon the surface of the earth, an appropriate environment was first created to sustain him and to enable him to attain the goals of happiness, progress and development (King James, 1890, Rev. 1983). However man was given the responsibility to take care of his environment, if it must yield him the desired fruits, otherwise he has to reap the consequences of his neglect and devastation.

But for man to be able to interact positively with his environment he needs to be equipped with appropriate knowledge, attitudes and skills. Schools all over the world

have been vested with the sacred responsibility of providing the right quality of education that will enable man to preserve and wisely uses his environment for the realisation of individual and societal aspirations. This implies that schools too, must operate under a conducive learning environment if they are to fulfil the objectives for which they are established.

The focus of this paper is to attempt a psychological and philosophical assessment of the impact of school plant on the realisation of school outcomes and how this in turn affects the quality of school plant. The implications of such co-terminus interactions are x-rayed and critical problems of the school plant are highlighted and possible recommendations postulated.

Co-terminus interaction of school plant and school outcomes

Although no one seem to have been able to accurately determine the extent of fallen standards of education in Nigeria, nationwide surveys conducted by Disu (1996), Malik (1997) and Foster (1999) seem to indicate that majority of the products of Nigerian schools seem to be grossly deficient in character and in learning as well as in vocational and practical skills. Iyamu (2005) asserts that there is a general loss of confidence in the quality of education in Nigeria due to irregularities in the school system. According to Oyesola (2000) one of the greatest irregularities is the poor condition of school plant, which has significantly contributed to the poor realisation of school outcomes. Durosaro (1998) maintains that in addition to what is added by teachers, school administrators and students characteristics, facilities constitute a necessary condition for the realisation of worthwhile objectives. The nature of the interaction of school plant and realisation of school outcomes is further discussed under the following:

1. **Cognitive outcomes:** Cognitive outcomes deal with the acquisition of knowledge and the development of intellectual abilities. According to Bloom (1956), the levels of Cognitive objectives arranged in hierarchical order of complexity include: knowledge, comprehension, application, synthesis and evaluation. It is possible to measure the attainment of all or some of these outcomes within the short period of a typical classroom lesson interaction. But in the long run the cumulative effects will be to produce individuals who are intellectually versatile, morally upright and highly creative.

Psychologist such as Thondike (1874 – 1949) have often called for the provision of a proper environment that allows the child to perform his or learning tasks to the best of his or her abilities with minimum stress and maximum economy (Amasuomo, 1999). To buttress the impact of the physical environment on learning Aristotle (384-322 BC) maintained that the physical world should be the starting point of philosophy. John Locke (1632-1704) equally submitted that the primary quality of experience is contained in the physical world. He contended that at birth a child's mind is like a blank sheet of paper (*Tabula rasa*), which gathers its impressions from the child's interaction with his environment (Lee, trans, 1954).

Willerman (1997), investigated the effect of school facilities on learning. He found that the intelligence quotient of twins when reared together in a well-equipped school environment correlated on the average to .90 but correlated to .80 when reared apart and in unequal school environments. The study concluded that the .10 point difference observed in the I.Q. of the twins was a clear indication of the effect of facilities on their intelligence. Similarly, Weinstein (1999) conducted a study on improving the intelligence quotient of Israeli settlers from Europe and the Middle Eastern countries. He found that the use of special environment succeeded in eliminating large I.Q. deficiencies among the settlers. Oyedeji (1991) studied the relationship between business education facilities and student academic performance in Ilorin metropolis of Kwara State of Nigeria. He found that students from schools with adequate business education facilities had higher mean grades in economics, commerce and principles of accounts than students from schools with inadequate facilities. He concluded that schools that are more equipped and provided with adequate number of teachers would more likely produce good scholars, while ill-equipped schools would likely produce weak students.

The implication of all these is that when a school environment is well equipped, it would positively enhance the realisation of cognitive, affective, and psychomotor objectives. But when the school environment is inadequate, it will inhibit the process of learning. On the other hand, if sound knowledge is acquired, it will positively impact on the quality of the environment while poor knowledge acquisition would negatively affective the creation and sustenance of a conducive learning environment.

2. **Affective outcomes:** The affective domain is connected with the changes in interest, attitudes and values and the development of appreciations and adjustment. It is divided into five major classes arranged hierarchical order on the basis of level of environment. These levels include: receiving, responding, value, organisation, and characterization by value (Krathwohl, Bloom and Masia, 1964). The affective domain focuses on human behaviour expressed in observable conduct.

Behavioural psychologist such as J.B Watson (1878 – 1958) contend that all human behaviour is learned in the constant process of interaction with the environment, which he believes to be much more important than heredity in the determination of behaviour. To buttress his point Watson asserted:

Give me a dozen infants well-formed and in my own specified environment to bring them up and I will guarantee to take any at random and train him to become any type of specialist I might select- doctor, lawyer, artist, e.t.c, and yes beggar man and the thief regardless of his talents and the race of his ancestors (Chauhan, 1998. P. 38).

This means that the development of noble or ignoble character could result from teachers and students interaction with the environment. According to Adesina (1980), the equality of education does not only depend on students' proficiency in learning but also on their worthiness of character. He however noted that the quality of character training children receive bears a direct relevance to the conduciveness of the physical environment and the overall atmosphere in which learning takes place. He argues that the school environment could produce comfort or discomfort, arouse feelings of disgust and depression or feelings of decency and pride depending on the extent of frustration and deprivation encountered in the school environment.

Naturalist philosophers such as John Jacque Roseau (1712-1776), emphasised that the aim of education is happiness and pleasure, which can only be derived in an appropriate learning environment. Education is seen as a process enabling the individual to live in harmony with his surroundings and to be properly adjusted to his environment (Sharman & Thyland, 1984). The implication of this is that the school plant can generate feeling of satisfaction or dissatisfaction, which can elicit positive or negative reactions from the students and teachers. Where the reactions are positive,

it will help in building up the environment to higher levels due to proper characterisation of desired values. But where the reactions are negative it could result in student demonstrations, and other retrogressive behaviours.

3. **Psycho-Motor Outcomes:** The psycho-motor outcomes include objectives related to muscular or motor skills, manipulations of material objects and neuromuscular coordination. The five levels of psycho-motor outcome include: reflex movement, basic fundamental movements, perceptual abilities, physical abilities, skilled movement and non-discursive communication (Kibler, Baker, and Miles, 1970). Essentially, the Psycho-motor focuses on skills acquisition, which forms the foundation of vocational and technological development as well as the individual's physical development. But the development of psycho-motor skills depends on the availability of facilities in the school plant for practical manipulations.

Stone (1993) reported a case where a chimpanzee named Viki was reared in the household of two American psychologists, Hayes and Hayes. They adopted her a few days after her birth and reared her as they would have possibly reared a human child. It was found that as a result of special training in this usually enriched environment, the chimpanzee not only developed more affinity with human babies than with other chimpanzees, but became capable of Psycho-motor activities far beyond the capacity of similar animals reared in a more orthodox environment. She learned to dust, wash dishes, sharpen pencils, paint furniture and understood sign language. In contrast, chimpanzees kept in the zoo with comparatively unstimulating physical environment consequently developed much more limited abilities.

From the point of view of realist philosophers such as Thomas Aquinas (1225-1274) and John Dewey (1859-1940), the aim of education should be the inculcation of practical and vocational skills through concrete manipulations of objects in the environment. They advocate for laboratory experimentation, workshop practical and field demonstrations (Sharman, 1984). But these can not be possible without an appropriate environment. This implies that a conducive school environment facilitates the attainment of psychomotor outcomes as is reflected in skilful dexterity in practical situations. This will in turn bring positive development on the environment through the application of technical skills to improve it. It also implies that an unfavourable environment could deprive students of the opportunity to acquire appropriate psycho-motor skills necessary for the ennoblement of the environment.

Problems of the school plant

For decades, educational planners and policy makers have focussed their attention on various factors that they believe contribute to school effectiveness. They tend to regard the physical environment of school as an institutional backdrop deserving very little attention. Widespread misconceptions tend to reinforce the view that the quality of school plant has no direct impact on the realisation of school outcomes. As a result a gap seems to exist between the educators' view of achieving school outcomes and the value they attach to the quality of the school environment. In spite of the lip service and massive propaganda of government to demonstrate concern and recognition of the value of the school environment; it is apparent that the physical environment for most schools at all levels of education in Nigeria is far from ideal.

1. **Improper construction of school plant:** The inadequacies in the physical environment of Nigeria schools could be traced right from the poor quality of school plant construction. In most cases the quality of construction materials and craftsmanship is not only poor but the critical ambient environmental factors of ventilation, lighting, colour, acoustics, layout and landscaping are neglected. However, Sani (2007) noted that the consequences of such neglect could be appreciated from the fact that with poor ventilation, air circulation in classrooms is inhibited and expired air generates infections, discomforts and poor concentration on learning tasks. Students can experience eye strain, blurry vision and headaches due to poor indoor lighting. Noise from poor acoustics can be a source of irritation and distraction. Wrong choice of colour could worsen temperature conditions in school buildings. Poor layout creates a chaotic school environment with traffic bottlenecks. Poor landscaping robs the school environment of its beauty as well as the shelter and protection provided by trees and flowers.

This situation clearly implies that the school plant in Nigeria schools is generally not conducive for effective realisation of school outcomes. The poor quality of school plant as provided stems from lack of strict adherence to master plans as provided in educational specifications and lack of proper inspection of construction materials and process due to high level of corruption in the Nigeria society.

2. **Inappropriate utilisation of school plant:** The school plant in Nigeria schools characteristically suffers from over utilisation and mishandling resulting from overcrowding especially in urban s. Congestion naturally exerts excessive pressure beyond the strength and theoretical limits to which the facilities are designed to carry. The result is rapid depreciation of facilities; such shortens the lifespan within which the facilities are supposed to be used for the realisation of school outcomes.

According to Sani (2007), the reasons for the over utilisation of school plant is not unconnected with the gross inadequacy of school buildings, furniture, ground and infrastructure. Governments at various levels have not given priority to periodic expansion of facilities, but much attention seems to focus on renovation. Though renovation of schools is good, it does not increase the size and carrying capacity to match the ever expanding school enrolment at all levels of education in Nigeria.

3. **Inadequate maintenance of school plant:** Although proper maintenance is very crucial towards preserving and updating the standard of facilities it appears that very little or no efforts are made to maintain the school plants in Nigeria. According to Taiwo (2001), vital equipment and machinery in most schools have broken down and were non-functional due to lack of regular servicing and repairs. Many school building are not safely and comfortably habitable due to leaking roofs, cracked walls, collapsed ceilings, broken floors, windows, panes, doors lids, as well as faded paints. He also noted the basic school infrastructures such as road network are damaged, electrical generators, power lines, electrical fixtures in buildings and electronic appliances were in bad condition. Water plants such as wells, boreholes, reservoirs, and pipes were in bad state. Many school premises were dirty and pest infested due to inadequate sewage and refuse disposals. Some school fences were not properly maintained to reduce security risks, trespassing and vandalism. Sani (2007) attributed the poor maintenance of school plant to poor maintenance culture and lack of planned maintenance strategies in Nigeria schools. The situation is probably compounded by inadequate funding to keep facilities in good shape at all times.

Recommendations

The quality of school plant could be improved so as create an enabling environment for effective realisation of school objective. To this end, close attention should be

given to the provision of adequate ventilation, lighting, acoustics, layout and landscaping of schools. This will only be accomplished by through adherence to educational specifications provided in master plant. Penalties for violation should be enforced.

The utilisation of school plant should be properly managed so as to optimise the attainment of educational objectives from minimum inputs. Priority should be given to expansion of plant or mishandling of facilities should be applied equitably and impartially.

The school plant should be regularly and adequately maintained if it is to continue to serve the purpose of enhancing the attainment of school objectives. School managers need to enforce maintenance culture and embark on planned maintenance strategies that would ensure the continuous execution of necessary maintenance services in Nigerian schools.

Conclusion

The school plant is a critical input that is provided in educational system for the purpose of enhancing the realisation of school objectives. If the quality of the school plant is good it would make a positive impact on the attainment of cognitive, effective, and psychomotor objective in Nigerian schools. However, these objectives should not be considered in isolation because their attainment in every lesson will have a cumulative impact on the individual's knowledge, attitudes and skills, which in turn compounds to determine the fate of the school plant and man's entire environment. This co-terminus interaction should not be taken lightly as an uncondusive school environment could generate discomforts and frustrations that could in turn generate negative and destructive reactions from learners with consequent retrogression in the educational system. This calls for collective and calculative efforts at ensuring high quality of school plant construction, utilisation and maintenance, which could go a long way in creating and sustaining a conducive child-friendly learning environment for the Nigerian child.

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